

## Product datasheet for MR228464

### Hmgb3 (NM\_001293623) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Hmgb3 (NM\_001293623) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Hmgb3  
**Synonyms:** Hmg2a; Hmg4  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR228464 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTAAAGGTGACCCCAAGAAACCAAGGGCAAGATGTCTGCTTATGCCTTCTTTGTGCAGACATGCA  
 GGAAGAACATAAGAAGAAAACCCAGAGGTTCCCGTCAATTTTGCTGAGTTCTCCAAGAAGTGTCCGGA  
 GAGGTGGAAGACCATGTCTAGCAAAGAGAAATCAAAGTTGATGAAATGGCAAAGGCAGATAAAGTCCGA  
 TATGATCGGGAGATGAAAGATTATGGACCAGCTAAAGGAGGCAAGAAGAAGAAGGACCCAAATGCCCCCA  
 AAAGACCTCCGTCTGGATTTTTCTATTCTGCTCTGAATCCGCCCAAGATCAAATCCACAACCCCTGG  
 CATCTCCATTGGAGATGTGGCAAAAAGCTGGGTGAGATGTGGAATAACTTAAGTGACAATGAAAAGCAG  
 CCTTATGTCACCAAGGCAGCAAAGCTGAAGGAGAAGTATGAGAAGGATGTTGCTGACTATAAGTCTAAAG  
 GGAAGTTTGTGGTCCAAAGGTCCTGCTAAAGTTGCCCGGAAAAGGTGGAAGAAGAGGAAGAGGAGGA  
 GGAAGAGGAAGAAGAGGAGGAGGAAGAGGAGGAAGATGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR228464 protein sequence  
 Red=Cloning site Green=Tags(s)

MAKGDPKPKGKMSAYAFFVQTCREEHKKKNPEVPVNF AEF SKKCSERWKTMS SKEKSKFDEMAKADKVR  
 YDREMKDYGPAKGGKKKDPNAPKRPPSGFFLFCSEFRPKIKSTNPGISIGDVAKKLGEMWNLSDNEKQ  
 PYVTKAALKLEKYEKDVADYKSKGKFDGAKGPAKVARKKVEEEEEEEEEEEEEEEEEEE

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV



Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM\_001293623

ORF Size: 603 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
  5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM\\_001293623.1](#), [NP\\_001280552.1](#)

RefSeq Size: 1798 bp

RefSeq ORF: 603 bp

Locus ID: 15354

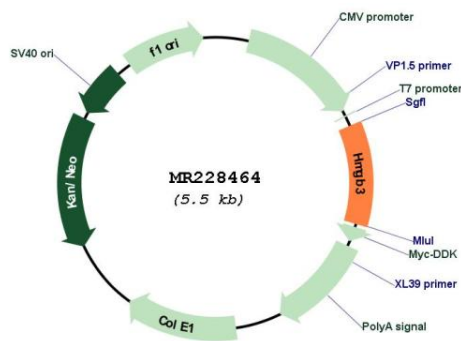
UniProt ID: [O54879](#)

**Cytogenetics:** X A7.3

**MW:** 23 kDa

**Gene Summary:** Multifunctional protein with various roles in different cellular compartments. May act in a redox sensitive manner. Associates with chromatin and binds DNA with a preference to non-canonical DNA structures such as single-stranded DNA. Can bent DNA and enhance DNA flexibility by looping thus providing a mechanism to promote activities on various gene promoters (By similarity). Proposed to be involved in the innate immune response to nucleic acids by acting as a cytoplasmic promiscuous immunogenic DNA/RNA sensor (PubMed:19890330). Negatively regulates B-cell and myeloid cell differentiation. In hematopoietic stem cells may regulate the balance between self-renewal and differentiation. Involved in negative regulation of canonical Wnt signaling (PubMed:12714519, PubMed:15358624, PubMed:16945912).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR228464